INTRODUCTION

The concept of the liability of foreignness (LoF) is the backbone of the fields of international strategy and international business. Stephen Hymer was one of the first scholars to recognize that multinational enterprises (MNEs) face extra costs when doing business in foreign countries compared with local competitors because of their lack of familiarity with local conditions (Hymer, 1960; Hymer, 1976). The LoF is commonly defined as ‘the costs of doing business abroad that result in a competitive disadvantage for an MNE subunit … broadly defined as all additional costs a firm operating in a market overseas incurs that a local firm would not incur’ ( Zaheer, 1995: 342–343).

The LoF has great impact on multinationals. Previous studies have found that it influences the internationalization strategy of multinationals, including the entry mode and performance implications of internationalization (Chen, 2006; Mezias, 2002). Given the importance of the LoF in global strategy,
scholars have tried to understand its various aspects, such as its definition, source, and how to overcome it (Eden and Miller, 2004; Mezias, 2002; Zaheer, 1995).

Because the LoF is a complex concept, one key stream within the LoF literature is to identify different types of the LoF. For instance, Eden and Miller (2004) broke down the LoF into three specific hazards: unfamiliarity hazards, discrimination hazards, and relational hazards. Our article falls into this literature by introducing a new categorization of different types of the LoF.

Previous studies in this area usually lay out the categorization without specifying its theoretical foundation. This study adopts the ownership–location–internalization (OLI) paradigm to categorize the LoF into ownership-specific (O), location-specific (L), and internalization-specific (I) LoF. Although the OLI paradigm has been applied to explain various aspects of internationalization (Dunning and Lundan, 2008a; Fiss and Hirsch, 2005), it has not been adopted to understand the LoF. Because the OLI paradigm is one of the most well-accepted frameworks in the international business literature (Eden and Dai, 2011; Portugal Ferreira et al., 2011), adopting the OLI paradigm ensures that our categorization considers the dominant factors that influence the internationalization of multinationals. Further, the OLI paradigm highlights the advantages that encourage firms to go abroad. It corresponds well with the concept of the LoF, which describes the disadvantages multinationals face when they go abroad.

Empirically, many studies on classifying different types of the LoF (Bell, Filatotchev, and Rasheed, 2012; Moeller et al., 2013) are largely theoretical without providing measurements or empirical support. By measuring different dimensions of the LoF with different dimensions of cross-national distance, our study bridges the literature of the LoF and cross-national distance, which is a key variable determining locational advantages and disadvantages in host countries relative to the home country. These two concepts are closely related to each other because large cross-national distance between the host and home country is usually associated with high LoF.

Similar to the LoF, cross-national distance is also a complex concept with a multidimensional nature (Berry, Guillen, and Zhou, 2010; Ghemawat, 2001). Given the close relationship between cross-national distance and the LoF and the fact that both concepts are aggregated constructs with layers of components, it makes sense to relate these two concepts by categorizing different types of the LoF according to different dimensions of cross-national distance. Therefore, in this study, we match different types of the LoF with different dimensions of cross-national distance and examine their impact on foreign entry location choice.

Related to the complex nature of the LoF, it is also important to consider the fact that firms face different types of the LoF under different circumstances. There is a lack of consideration of firm heterogeneity when examining different types of the LoF. Firms differ in many aspects, such as their motivations to go abroad. Therefore, it is unrealistic to assume that all firms face the same type of the LoF regardless of the motivation for foreign direct investment (FDI). We argue that the importance of each type of the LoF is not always the same. We hypothesize that the impact of each type of the LoF differs depending on whether the FDI is market, efficiency, strategic asset, or natural resource seeking.

To summarize, we answer three research questions in this study: (1) What are the different types of the LoF?; (2) How do different types of the LoF relate to different dimensions of cross-national distance?; and (3) How do they influence the choice of foreign entry? We adopt the OLI paradigm as the theoretical foundation of our categorization (Dunning, 1993; Dunning and Lundan, 2008b). Empirically, we find support for our hypotheses in the context of Chinese listed firms investing abroad from 1999 to 2007.

By answering these three questions, this study makes three contributions. First, it unifies the literatures on the LoF and on cross-national distance. Both are important concepts in international business and management. However, the existing literature does not integrate these two streams. We link different types of the LoF to different dimensions of cross-national distance. Creating such a connection helps us better understand the nature of these two concepts and also better explains the pattern of FDI both theoretically and empirically. Besides bridging the literatures on the LoF and cross-national distance, this study also contributes to these two areas separately. It contributes to the literature on the LoF by introducing a new typology to categorize different types of the LoF and considering firm heterogeneity in examining the effects of the LoF. Adopting the OLI paradigm to categorize the LoF and measuring the categorization by cross-national distance enable a systematic approach to understand the LoF. Classifying the impact of the LoF by foreign direct investment motivation helps us understand the distinctive difficulties faced by multinationals when they go abroad.
Finally, this study contributes to the literature on cross-national distance by highlighting the contingency nature of the relationship between distance and the location choice of FDI. The existing research findings on this relationship are not conclusive. Our study shows that the relationship is complex and contingent on the types of the LoF and also the FDI motivations.

CATEGORIZING THE LIABILITY OF FOREIGNNESS

The liability of foreignness

The concept of the LoF describes the additional costs multinationals face relative to host country competitors when they operate in foreign countries. Hymer (1960) identified several disadvantages of foreign firms, such as the lack of information about the host country. Building on Hymer’s insights, Zaheer (1995) developed the concept of the LoF, which becomes an important concept in the area of international business and management.

Since the introduction of the concept, scholars have tried to understand different aspects of the LoF (Eden and Miller, 2001; Hennart, Roehl, and Zeng, 2002; Zaheer and Mosakowski, 1997), including its categorization. Scholars have proposed different categorizations of the LoF. In a theoretical piece, Calhoun (2002) identified cultural-driven external and internal sources of the LoF. Eden and Miller (2004) grouped the LoF into three specific hazards: unfamiliarity hazards, discrimination hazards, and relational hazards. Qian, Li, and Rugman (2013) distinguished the liability of country foreignness and the liability of regional foreignness. Similarly, Asmussen and Goerzen (2013) unpacked the LoF into regional, cultural, and institutional dimensions.

Cross-national distance

Existing attempts to categorize the LoF did not systematically incorporate the concept of cross-national distance—which is also an important concept in international business—despite the fact that many studies captured the foreignness of the host country by calculating the distance with the home country (Berry et al., 2010; Kostova, 1996; Xu and Shenkar, 2002; Zhou and Guillén, 2015).

Previous studies on cross-national distance have recognized that it is a multidimensional concept. For example, Xu, Pan, and Beamish (2004) measured normative and regulative distance. Berry et al. (2010) disaggregated the construct of distance by proposing a set of multidimensional measures, including economic, financial, political, administrative, cultural, demographic, knowledge, and global connectedness as well as geographic distance.

There is a large body of literature on the impact of different distance dimensions on the various global strategies, such as entry mode choice (Kogut and Singh, 1988) and subsidiary performance (Barkema, Bell, and Pennings, 1996), among others (for a review of the literature, see Werner, 2002). In this study, we focus on the location choice of FDI, which is one of the most important decisions in foreign expansion. Table 1 summarizes the studies in these areas.

The first half of the table includes some of the most influential papers on distance, while the second half focuses on the studies that investigate the relationship between distance and location choice. The findings of the first half of the studies are not consistent. For instance, while some found that large cultural distance encourages wholly owned subsidiaries, other found the opposite. These inconsistent findings suggest that the relationship between distance and global strategy is complicated, and we need to adopt a contingency approach to understand it (Drogendijk and Slangen, 2006; Gaur and Lu, 2007).

Most of the recent studies on distance investigate different dimensions of cross-national distance and also recognize the contingency nature of the complex relationship. For instance, Slangen and Beugelsdijk (2010) found that institutional hazards are more negatively related to vertical foreign activity than to horizontal foreign activity; and the impact of governance hazards on each type of foreign activity is more negative than the impact of cultural hazards on that type of activity.

Building on these previous studies, we adopt a contingency perspective to understand the relationship between different distance dimensions and foreign location choice. Different from other studies, we explore the contingency by linking different distance dimensions to different types of the LoF, and we also distinguish different FDI motivations.

In this study, we adopt Berry et al. (2010)’s distance dimensions as our pool of selection for different distance dimensions and pick up the most relevant distance dimensions for each type of the LoF. We choose this distance classification for both theoretical and empirical reasons. Theoretically, this classification is comprehensive, and Berry and her colleagues grounded their analyses and choice of dimensions on...
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institutional theories of national business, governance, and innovation systems (Henisz and Williamson, 1999; La Porta et al., 1998; Nelson and Rosenberg, 1993; Whitley, 1992), resulting in nine dimensions, including cultural, economic, demographic, political, administrative, financial, knowledge, global connectiveness, and geographic distance. They approached cross-national distance from an institutional perspective so as to capture the rich diversity of ways in which countries differ, thus following recent institutional theorizing in the field of international business (Jackson and Deeg, 2008; Pajunen, 2008). Empirically, in order to overcome the limitations of the Euclidean approach, they calculated dyadic distances using the Mahalanobis method, which is scale invariant and takes into consideration the variance–covariance matrix.

Categorizing different types of the LoF by the OLI paradigm

The OLI paradigm suggests that the decision to invest internationally and the impact of the investment reflect the joint effects of O-specific, L-specific, and I-specific advantages (Dunning, 1993; Dunning and Lundan, 2008b). O-specific advantage arises from multinationals’ ownership of, or access to, a set of income-generating assets, or capabilities to coordinate these assets, in a way that benefits them relative to their competitors. L-specific advantages refer to specific resources and market conditions of a host country that are potentially available to all firms. I-specific advantage reflects the greater organizational efficiency or superior incentive structure of hierarchies, or the ability to exercise monopoly power over the assets under common governance. The OLI paradigm has been used widely by scholars to explain why firms invest abroad and the patterns of FDI across countries (Hill, Hwang, and Kim, 1990; Li et al., 2013; Singh and Kundu, 2002). The paradigm is designed to explain the advantages of multinationals and how these advantages motivate FDI. Few previous studies adopted this paradigm to examine the disadvantages that multinationals face when they invest abroad (Denk, Kaufmann, and Roesch, 2012; Dunning, 2000).

In our analyses, we excluded financial, knowledge, and global connectiveness dimensions because of high correlations with other dimensions.
In this study, we adopt the OLI paradigm to categorize different types of the LoF for two reasons. First, the OLI paradigm is a comprehensive framework that synthesizes many theories to explain the globalization of multinationals. It is one of the most well-accepted frameworks in the international business literature (Eden and Dai, 2011; Portugal Ferreira et al., 2011). As we can see from Table 1, many of the studies on distance and foreign direct investment use transaction cost theory, the Uppsala model, and institutional theory. The OLI paradigm is a synthesis of these different theories. For instance, O-specific and I-specific advantages are related to transaction cost theory because the internalization of O-specific advantages reduces transaction costs. L-specific advantage is related to the Uppsala model, because locational factors such as cross-national distance determine the path of globalization. Adopting the OLI paradigm ensures that our categorization considers the dominant factors that influence the internationalization of multinationals. Second, the OLI paradigm highlights the advantages that encourage firms to go abroad. It is exactly the opposite of the LoF, which describes the disadvantages multinationals face when they go abroad. Such a corresponding relationship between the two concepts enables us to consider the pros and cons of globalization using the same framework.

Ownership-specific LoF refers to the costs that reduce O-specific advantage. An important part of O-specific LoF is product adaptation cost. O-specific advantages are usually exemplified by the superiority of products in terms of quality, price, technology, or special features (Agarwal and Ramaswami, 1992; Anand and Delios, 2002). Differences between host and home countries in terms of consumer demand may reduce O-specific advantage because multinationals need to pay additional costs—first to identify the differences and then to adjust their products to suit the demands of local customers. We label such costs as product adaptation costs. For example, Nokia developed handset models specific to India with features such as a flashlight, a dust cover, and a slip-free grip.

Location-specific LoF refers to the costs that reduce L-specific advantage. Discrimination cost is an important part of L-specific LoF. Discrimination costs refer to the costs derived from unfavorable treatment by the host country government when multinationals try to acquire locational-bound resources in foreign countries. Governments increase discrimination costs by imposing rules and regulations against foreign firms (Kobrin, 1987; Meschi, 2009), especially when foreign firms try to acquire local natural resources (e.g., minerals, oil, or gas) or technology (Garcia-Canal and Guillen, 2008; Henisz, Dorobantu, and Nartey, 2014). Biases held by the host country government against foreign firms reduce multinationals’ legitimacy in the foreign country (Brouthers, O’Donnell, and Hadjimarcou, 2005; Kostova and Zaheer, 1999), resulting in unfavorable consequences, such as disapprovals of foreign investments (Ambos and Ambos, 2009), and more stringent requirements on the operation of multinationals (Wang, 2007).

Internalization-specific LoF refers to the costs that reduce MNEs’ internalization advantage. Governance costs and appropriation costs are two important parts of I-specific LoF. Governance costs refer to multinationals’ additional costs of managing foreign subsidiaries because of increased communication and coordination costs (Hennart, 2001). For instance, a foreign manager will spend more time and effort communicating with his/her local subordinates when they do not share the same language, thus increasing governance costs, which become part of the I-specific LoF. Appropriation costs are the costs associated with the possibility of expropriation of the foreign investment by the government. Foreign direct investment is more risky than other modes of foreign entry (such as exports or franchising) because it involves direct investment in foreign countries (Tallman, 1991). When firms choose to internalize foreign operations by conducting foreign direct investment, appropriation costs become a primary concern. The risk originates from the possibility that once an MNE has sunk the capital necessary to conduct business operations in a country, the government may at some future point face incentives to renegotiate the terms of investment in order to redistribute the MNE’s returns (Henisz and Zelner, 2004). An extreme case would be the seizure of the foreign investment by the government. The three types of the LoF and the associated costs are summarized in Columns 1 and 2 of Table 2.

### DIFFERENT TYPES OF THE LIABILITY OF FOREIGNNESS BY TYPE OF FOREIGN DIRECT INVESTMENT

The LoF can influence multinationals in different ways (Miller and Parkhe, 2002). In particular, it affects the process by which multinationals internationalize (Denk et al., 2012): they first enter countries associated with lower degrees of the LoF (Johnson
and Wiedersheim-Paul, 1975). Although the three different types of the LoF pose additional costs for all foreign direct investments, their relative importance differs by type.

In his work, Dunning identified four types of foreign direct investment in terms of motivations: market-seeking, efficiency-seeking, strategic asset-seeking, and natural resource-seeking foreign direct investment (Dunning and Lundan, 2008b). Market-seeking FDI is undertaken to sell products in foreign countries. The objective of efficiency-seeking FDI is to gain from the common governance of geographically dispersed activities to reduce costs. Strategic asset-seeking FDI is conducted to promote long-term strategic objectives, such as sustaining or advancing global competitiveness through the acquisition of new capabilities. Natural resource-seeking FDI occurs when multinationals invest abroad to acquire particular and specific resources that do not exist in the home country or are available at a higher quality and/or lower cost in the host country. Although the three types of the LoF are relevant to all four types of foreign direct investment, their relative importance differs, as shown in Columns 3–6 of Table 2. Next, we will explain the rationales in detail.

**Market-seeking foreign direct investment**

Because the primary objective of market-seeking foreign direct investment is to sell products in the host country by exploiting the multinationals’ O-specific advantages, differences in product demands between the home and host markets become the major concern of multinationals. Such differences jeopardize the O-specific advantages that multinationals enjoy. Therefore, multinationals need to adjust their products to address the differences. Product adaptation costs are especially important in market-seeking foreign direct investment.

We measure product adaptation costs by different dimensions of cross-national distance. Product adaptation costs increase with cross-national distance because it reflects differences in consumer demand and, thus, the need to adapt. As mentioned earlier, we apply multiple distance dimensions developed by Berry et al. (2010) to measure product adaptation costs.

Product adaptation costs are high when consumer demands in host and home countries are different. The most relevant distance dimensions are those closely related to consumer preference: cultural,
economic, and demographic distance. Cultural distance refers to the difference in cultural values and norms, and it creates product adaptation costs by influencing the choices that consumers make because of their preference (Ghemawat, 2001). For example, consumer durable industries are particularly sensitive to differences in consumer tastes and preferences. The Japanese prefer small automobiles and household appliances because of the social norm common in countries where space is highly valued.

Product adaptation costs are also associated with economic distance. Economic distance reflects the difference in consumer purchasing power between two countries. Purchasing power is the ability of consumers to buy. In general, the more economically developed a country, the more purchasing power consumers in that country have. Because before expanding abroad, the firm typically sells goods and services tailored to the characteristics of the home country (Vernon, 1979), differences in purchasing power and other economic characteristics have an impact on demand conditions and, therefore, the need to adapt.

Product adaptation costs are also affected by demographic distance, which captures national difference in terms of the size, growth, and age structure of population (Berry et al., 2010). These differences have direct implications for market attractiveness and growth potential. Differences in factors such as life expectancy, birth rates, and the resulting age structure of the population, among others, attest to fundamental characteristics of the population of countries and may affect consumer behavior and, thus, the need to adapt.

Summarizing these arguments on product adaptation costs, we predict that:

*Hypothesis 1: Cultural distance, economic distance, and demographic distance reduce market-seeking foreign direct investment.*

### Efficiency-seeking foreign direct investment

Efficiency-seeking foreign direct investment critically depends on the balance between the advantages gained from spreading value-added activities across various locations and the costs of communication and coordination over distance (Aarland et al., 2007). Because of the relatively low international mobility of labor, wage differentials between home and host countries can become a major determinant of efficiency-seeking foreign direct investment (Kimino, Saal, and Driffield, 2007). Various empirical studies have supported the prediction that lower wages attract foreign direct investment (Taylor, 2000). Therefore, efficiency-seeking foreign direct investment is conducted to acquire L-specific advantage (low labor cost) in foreign markets. Accordingly, the L-specific LoF is important. Discrimination cost from the actions by the foreign government becomes a major concern for efficiency-seeking foreign direct investment. For example, the government could impose more stringent regulations on the operation of multinationals (Wang, 2007).

Discrimination cost is closely related to political distance, which captures the difference in institutional checks and balances (Demirbag, Glaister, and Tatoglu, 2007; Dow and Karunaratna, 2006; Henisz, 2000), democratic character, the size of the state relative to the economy, and external trade associations (Brewer, 2007; Hirschberg, Sheldon, and Dayton, 1994). For efficiency-seeking foreign direct investments, the primary source of discrimination by host country government is political distance, because discrimination treatment is more likely to happen to multinationals from countries with large political distance because of the host country government’s unfamiliarity with the home country’s political system (Brandt and Li, 2003).

Host country governments can increase discrimination costs by imposing rules and regulations against foreign firms (Kobrin, 1987; Meschi, 2009). Host country governments tend to associate foreign firms with negative images because of unfamiliarity (Ewing, Windisch, and Newton, 2010). Such images reduce foreign multinationals’ legitimacy in foreign countries (Brouthers et al., 2005; Kostova and Zaheer, 1999), resulting in unfavorable consequences such as the reluctance of the host country government to allow foreign investment from emerging markets (Ambos and Ambos, 2009) and more stringent requirements on the operation of foreign multinationals (Wang, 2007). Therefore, discrimination costs faced by efficiency-seeking FDI increase with the political distance between host and home countries.

Efficiency-seeking foreign direct investment is also influenced by L-specific LoF. Because hiring foreign employees with lower wages is an important driver for efficiency-seeking FDI, governance costs associated with managing foreign employees become the primary concern for managers. Governance costs grow with administrative distance, which refers to
differences in bureaucratic patterns owing to colonial ties, language, religion, and the legal system (Ghemawat, 2001; La Porta et al., 1998; Whitley, 1992). While one could argue that administrative distance is related to cultural distance, we believe it is distinct because it goes beyond it to include both formal and informal institutional arrangements in a society. Administrative distance increases governance costs by raising communication, coordination, and administrative costs. For example, a Chinese manager may find it difficult to communicate with its French subordinates because of language barriers.

Appropriation costs are also important in efficiency-seeking FDI because establishing manufacturing facilities in foreign countries usually involves large investments in plants, equipments, raw materials, and other necessary inputs (Henisz and Delios, 2001). Therefore, the concern about potential appropriation is also a primary consideration in efficiency-seeking foreign direct investment.

Different from other costs that are increased by cross-national distance, appropriation costs are enhanced by political hazards (Delios and Henisz, 2000). Political hazards in a country are high when policy makers can act unilaterally or have high certainty that a subservient or allied legislature and judicial branch will support their actions, because future policies are likely to be particularly volatile in response to exogenous shocks, to changes in the identity of policy makers, or to changes in the preferences of existing policy makers (Delios and Henisz, 2003). When political hazards are high, multinationals face high appropriation costs because the government can easily change policy or, at the extreme, seize the firm’s foreign assets.

Summarizing these arguments on discrimination costs, governance costs, and appropriation costs, we predict:

_Hypothesis 2: Political distance, administrative distance, and political hazards reduce efficiency-seeking foreign direct investment._

**Strategic asset-seeking foreign direct investment**

Strategic asset-seeking FDI is driven by the multinationals’ need to access new resources and capabilities in foreign countries. In strategic asset-seeking FDI, there are two primary objectives: to acquire foreign strategic assets such as knowledge and to transfer it within the multinational (Li et al., 2013; Lu, Liu, and Wang, 2011). While the former is related to discrimination cost, the latter is related to governance cost and appropriation cost.

Discrimination costs are important for strategic asset-seeking FDI because multinationals need to obtain approval from the host country government to acquire strategic assets. Strategic assets such as technology and brand are best acquired through acquisition (Elango and Pattnaik, 2011; Luo et al., 2011). Discrimination costs are high when acquisitions by foreign firms are conceived by local stakeholders as sensitive and undesirable (Graham and Marchick, 2006). The host country government may create barriers by banning acquisitions, because of the fear that national security would be threatened. For example, Huawei, a Chinese telecommunication device provider, failed in its attempt to acquire 3leaf, an American company, because the U.S. government did not approve the acquisition out of national security concerns. Therefore, discrimination costs are important in strategic asset-seeking foreign direct investment. We have argued earlier that discrimination costs are increased by political distance.

In strategic asset-seeking foreign direct investment, another important consideration is how to transfer the acquired assets or knowledge within the firm effectively (Makino and Delios, 1996; Steensma et al., 2000). Therefore, I-specific costs are important. Many scholars have argued that some knowledge is partially tacit and transfer requires frequent interactions within the organization (Almeida, 1996; Kogut and Zander, 1992; Nelson and Winter, 1982). The efficiency of such transfer is closely related to governance costs because external or ‘imported’ knowledge needs to be adapted to different conditions and shared within the MNE (Teece, 1986), and such adaptation and transfer increases the costs of monitoring and managing. We have argued earlier that governance costs are enhanced by administrative distance.

Another component of I-specific LoF is appropriation costs. Strategic asset-seeking FDI usually takes the form of mergers and acquisitions (Batson, 2007), and conducting mergers and acquisitions in foreign countries requires a large amount of investment. Therefore, concern of appropriation is also a primary consideration in strategic asset-seeking foreign direct investment.

Summarizing these arguments on discrimination costs, governance costs, and appropriation costs, we predict:
Hypothesis 3: Political distance, administrative distance, and political hazards reduce asset-seeking foreign direct investment.

Natural resource-seeking foreign direct investment

In natural resource-seeking FDI, the primary goal is to acquire foreign natural resources. Accordingly, discrimination costs are crucial. Similar to strategic asset-seeking FDI, it is critical for natural resource-seeking FDI to obtain approval from the host country government. The difficulties frequently faced by multinationals when it comes to obtaining licenses and approvals from the host country government in natural resource industries have been documented extensively in the literature (Globerman and Shapiro, 2009; Henisz et al., 2014). We have argued earlier that discrimination costs increase with political distance. Thus, we expect that:

Hypothesis 4: Political distance reduces natural resource-seeking foreign direct investment.

METHODOLOGY

Empirical setting

To test the hypotheses, we used data on the foreign entries made by Chinese listed firms from 1999 to 2007. The data begin in the year of 1999 because the accounting rules in China required listed firms to report foreign subsidiaries systematically only after 1999. The data on foreign subsidiaries before 1999 is likely to be unreliable or uncomprehensive. Including data prior to 1999, however, does not change the results we report. This Chinese sample provides an excellent research setting for three reasons. First, China has become one of the largest outward FDI investors in the world. Chinese outward FDI is increasing rapidly, from $0.9 billion in 1991 to $101 billion in 2013 (UNCTAD, 1996, 2014). Second, Chinese firms have invested in a wide array of countries, including 23 developed countries and 52 developing countries in our sample. Third, Chinese firms started to globalize during the 1990s. Examining Chinese firms from the early stage of globalization avoids left-censoring problems.

For each Chinese firm in the sample, we reviewed their annual reports to identify any foreign subsidiary. In cases in which not enough information was provided, we searched other internet sources or contacted the company. Chinese listed firms are required to disclose information on major subsidiaries (e.g., country of entry, amount of capital invested, percentage of ownership, and primary business activities or major products) in the appendix of their annual reports. And then, we determined the establishment year of each subsidiary as given in the annual report, on the company’s website, or through further internet searches. We obtained ownership information from Guo Tai An (GTA), a research service center. Finally, we collected financial data from China Stock Market Accounting Research (CSMAR), a database that is part of Wharton Research Data Services. Overall, there are 256 Chinese firms owning 649 foreign subsidiaries in 38 countries from 1999 to 2007.

Variable definitions

Dependent variables

We identified different types of foreign direct investment through the description of subsidiaries’ business activities in the company’s annual report. Market-seeking foreign direct investment includes foreign subsidiaries that sell products in a given host country. Efficiency-seeking foreign direct investment includes foreign subsidiaries that produce but do not sell products in a host country. Strategic asset-seeking foreign direct investment includes foreign subsidiaries that conduct research and development activities in a host country. Natural resource-seeking foreign direct investment includes foreign subsidiaries that exploit natural resources, such as mining or fishing, in a host country. It is possible that an MNE enters a foreign country in a year for multiple reasons. In this case, this particular firm-country-year appears in our dataset multiple times, but each type of foreign direct investment appears only once. When the information on foreign subsidiaries is not comprehensive enough to determine the purpose of a foreign subsidiary, we searched the company’s website or did a web search to find out detailed information on the nature of the foreign subsidiary. In some cases, we contacted the company to ask about the particular foreign subsidiary. We hired two research assistants to code the different types of FDI, and the inter-rater reliability correlation coefficient was +0.92. When there was a disagreement, one of the authors decided which coding to adopt based on further research on the subsidiary.
For each Chinese firm, the foreign direct investment dependent variables are dummies that equal to ‘1’ if a firm makes a certain type (market seeking, efficiency seeking, strategic asset seeking, or natural resource seeking) of FDI in a certain host country in a certain year, and it is ‘0’ otherwise. The level of analysis is firm-country-year. Because not all parent firms are listed from the beginning of our study period, we have an unbalanced panel dataset.

**Independent variables**

Cross-national distance measures come from the database developed by Berry et al. (2010). Details about cultural, economic, demographic, political, and administrative distance are summarized in Table 3.

Political hazard is measured by the POLCONV index. This annual time-varying measure obtained from Henisz (2000) quantifies the extent to which any one institutional actor—e.g., the executive or a legislative chamber—in a given country is unconstrained in its choice of policies. It has been used widely by scholars to measure political hazard (Delios and Henisz, 2003; Holburn and Zelner, 2010; Slangen, 2013).

**Control variables**

We used the percentage held by the top 10 shareholders to measure ownership concentration. Managers may choose to invest abroad to pursue their own interests rather than shareholders’. High ownership concentration suggests large owners.

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**Table 3. Details about distance dimensions**

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</tr>
</thead>
<tbody>
<tr>
<td>Cultural distance</td>
<td>WVS questions on obedience and respect for authority</td>
<td>World Value Survey</td>
</tr>
<tr>
<td>Power distance</td>
<td>WVS questions on trusting people and job security</td>
<td>World Value Survey</td>
</tr>
<tr>
<td>Uncertainty avoidance</td>
<td>WVS questions on independence and the role of government in providing for its citizens</td>
<td>World Value Survey</td>
</tr>
<tr>
<td>Individualism</td>
<td>WVS questions on the importance of family and work</td>
<td>World Value Survey</td>
</tr>
<tr>
<td>Masculinity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic distance</td>
<td>GDP per capita (in 2000 U.S. dollars)</td>
<td>WDI</td>
</tr>
<tr>
<td>Inflation</td>
<td>GDP deflator (% GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>Exports</td>
<td>Exports of goods and services (% GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>Imports</td>
<td>Imports of goods and services (% GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>Demographic distance</td>
<td>Life expectancy at birth, total (years)</td>
<td>WDI</td>
</tr>
<tr>
<td>Life expectancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth rate</td>
<td>Birth rate, crude (per 1,000 people)</td>
<td>WDI</td>
</tr>
<tr>
<td>Population under 14</td>
<td>Population ages 0–14 (% of total)</td>
<td>WDI</td>
</tr>
<tr>
<td>Population under 65</td>
<td>Population ages 65 and above (% of total)</td>
<td>WDI</td>
</tr>
<tr>
<td>Political distance</td>
<td>Political stability measured by considering independent institutional actors with veto power</td>
<td>POLCON</td>
</tr>
<tr>
<td>Policy-making uncertainty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic character</td>
<td>Democracy score</td>
<td>Freedom House</td>
</tr>
<tr>
<td>Size of the state</td>
<td>Government consumption (% GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>WTO member</td>
<td>Membership in WTO (GATT before 1993)</td>
<td>WTO</td>
</tr>
<tr>
<td>Regional trade agreement</td>
<td>Dyadic membership in the same trade bloc</td>
<td>WTO</td>
</tr>
<tr>
<td>Administrative distance</td>
<td>Whether dyad shares a colonial tie</td>
<td>CIA Factbook</td>
</tr>
<tr>
<td>Colonizer-colonized link</td>
<td>% population that speaks the same language in the dyad</td>
<td>CIA Factbook</td>
</tr>
<tr>
<td>Common language</td>
<td>% population that shares the same religion in the dyad</td>
<td>CIA Factbook</td>
</tr>
<tr>
<td>Common religion</td>
<td>Whether dyad shares the same legal system</td>
<td>La Porta et al., 1998</td>
</tr>
<tr>
<td>Legal system</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CIA, Central Intelligence Agency; GATT, General Agreement on Tariffs and Trade; GDP, gross domestic product; POLCON, political constraint; WDI, World Development Index; WTO, World Trade Organization; WVS, World Value Survey.
have more incentive and power to monitor managers’ behavior, thus reducing agency
problems (Fama and Jensen, 1983; Jensen and Meckling, 1976).

Product diversification also influences the probability of foreign direct investment in that it is
resource consuming and, thus, competes with globalization for scarce resources such as capital.
However, the experience generated from product diversification also might be applied to globalization.
Research on the relationship between product diversification and globalization remains inconclusive
(Doukas and Lang, 2003; Tallman and Li, 1996). We controlled for product diversification
using the concentric index developed by Montgomery and Wernerfelt (1988).

A firm’s size may influence the pattern of its multinational activity (Swaminathan and Delacroix,
1991) and provide an indicator of its ability to survive in foreign markets. Larger firms should be
more likely to go abroad, whereas smaller firms likely lack the knowledge and experience to expand
overseas. We measured firm size by the logarithm of total sales.

A firm’s age may also influence the probability of it investing abroad because older firms may be subject
to inertia, which will prevent strategic changes (Hannan and Freeman, 1977). We measured age by
the number of years since founding.

Better-performing firms are more likely to invest abroad because they have the necessary resources
and capabilities. Therefore, we controlled for firm performance by return on assets, or ratio of net profit to
total assets.

Because firms can learn from their international experiences (Barkema and Vermeulen, 1998; Delios
and Henisz, 2003; Hitt, Li, and Worthington, 2005), we also controlled for a firm’s prior international
experience, which is measured by the total number of foreign investments a firm made before the year
of a potential entry.

We controlled for geographic distance because it influences transportation costs. It is calculated by
using the great circle method. For each type of foreign direct investment, we also control for host
country locational advantage. For market-seeking foreign direct investment, we include the size of
the population, which is measured by a country’s population. For efficiency-seeking foreign direct
investment, we include gross domestic product per capita as a control for the level of labor cost. For
strategic asset-seeking foreign direct investment, we include the number of patents per million people
as a control for the stock of knowledge and technology in a country. For natural resource-seeking
foreign direct investment, we include total natural resource rents as a percentage of gross domestic
product to control for the stock of natural resource in a country. Total natural resource rents are the
sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. The data
source for these locational factors is the World Development Index.

Finally, to control for possible industry and time effects, we included industry and year dummies in all regressions.

Estimation method

Because the dependent variables are dummy variables, we used logit regression. We constructed the
dataset by including all of the possible combinations of firm-country-year observations. Given that only a
small proportion of the dependent variable has the value of one, we estimated rare-event logistic regres-
sion models. The relogit command in STATA generates approximately unbiased and lower-variance estimates
of logit coefficients and their variance–covariance matrix by correcting for small samples and rare events
(King and Zeng, 2001). We used the cluster option in STATA to account for intragroup variance. We did not
use the conditional logit model because it has several limitations, such as the inability to accommodate or
control for the effects of firm-level heterogeneity (Martin, Swaminathan, and Tihanyi, 2007). We also
provide additional results using seemingly unrelated regression.

RESULTS

Table 4 provides the means, standard deviations, and correlations for the sample. The mean values of the
dependent variables are close to zero, which confirm that our choice of rare-event logit regression is appro-
priate. In order to reduce the correlations among different distance dimensions and also to compare
coefficients, we normalized them. The correlations of most normalized distance dimensions are not high.
We also checked the variance inflation factor scores, and they are lower than 10. Therefore, there is no
serious multicollinearity.
Table 4. Means, standard deviations, and correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Market-seeking foreign direct investment</td>
<td>0.0004</td>
<td>0.02</td>
</tr>
<tr>
<td>2. Efficiency-seeking foreign direct investment</td>
<td>0.0000</td>
<td>0.00</td>
</tr>
<tr>
<td>3. Strategic asset-seeking foreign direct investment</td>
<td>0.0001</td>
<td>0.01</td>
</tr>
<tr>
<td>4. Natural resource-seeking foreign direct investment</td>
<td>0.0000</td>
<td>0.00</td>
</tr>
<tr>
<td>5. Cultural distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>6. Economic distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>7. Demographic distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>8. Political distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>9. Political hazard</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>10. Administrative distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>11. Ownership concentration</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>12. Product diversification</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>13. Log of sales</td>
<td>20.46</td>
<td>1.31</td>
</tr>
<tr>
<td>14. Age</td>
<td>7.92</td>
<td>3.79</td>
</tr>
<tr>
<td>15. Return on assets</td>
<td>0.18</td>
<td>0.20</td>
</tr>
<tr>
<td>16. Prior international experience</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17. Geographic distance</td>
<td>0.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

n = 136,513. Correlations greater than 0.009 are significant at the 0.01 level (two-tailed test).

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Table 5 shows the results of the rare-event logit regressions for Chinese firms to test Hypotheses 1–4. There are eight model specifications in the table. The dependent variable of Models 1 and 2 in Table 6 is market-seeking FDI; of Models 3 and 4 is efficiency-seeking FDI; of Models 5 and 6 is strategic asset-seeking FDI; and of Models 7 and 8 is natural resource-seeking FDI. Models 1, 3, 5, and 7 are the baseline models that include only control variables. In Models 2, 4, 6, and 8, we entered the distance dimensions that measure the three different types of the LoF.

First, we focused on market-seeking FDI. In Model 2, all three measures of O-specific LoF (product adaptation costs)—cultural, economic, and demographic distance—are negative and significant, while neither L-specific LoF (discrimination costs: political distance) nor I-specific LoF (appropriation costs: political hazard; and governance costs: administrative distance) are significant. The results suggest that the three measures of product adaptation costs have greater impact on the location choice of market-seeking foreign direct investment. Therefore, Hypothesis 1 is supported.

In addition to being statistically significant, these effects are also large in magnitude. In Model 2, holding other variables at their mean values, when cultural distance increases from the 25th percentile to the 75th percentile, the probability of investing decreases by 97.7 percent. The same number is 60.3 percent for demographic distance and 23.5 for economic distance. The results show that although absolute risk is low, product adaptation costs do have a large impact on the relative risk of foreign direct investment.

In Model 4, political distance, political hazard, and administrative distance are negative and significant, while cultural, economic, and demographic distance are not significant. The results suggest that L-specific LoF and I-specific LoF, not O-specific LoF, are the major obstacles of efficiency-seeking foreign direct investment. Therefore, Hypothesis 2 is supported. In Model 4, holding other variables at their mean values, when political distance, political hazard, and administrative distance increase from the 25th percentile to the 75th percentile, the probability of investing decreases by 11.9 percent, 15.5 percent, and 47.1 percent, respectively.

The results in Model 6 are similar to those in Model 4. Political distance, political hazard, and administrative distance are all negative and significant. Therefore, Hypothesis 3 is also supported. In Model 6, holding other variables at their mean values, when political distance, political hazard, and administrative distance increase from the 25th percentile to the 75th percentile, the probability of investing decreases by 20.3 percent, 8.9 percent, and 37.8 percent, respectively.

In Model 8, only political distance is negative and significant. The results show that discrimination costs are the primary concern for natural resource-seeking foreign direct investment. So, Hypothesis 4 is also supported. In Model 8, holding other variables at their mean values, when political distance increases from the 25th percentile to the 75th percentile, the probability of investing decreases by 23.6 percent.

Among the control variables, product diversification is negative and significant in most models. Firms that engage in greater product diversification are less likely to invest abroad, because of resource constraints. Ownership concentration is negative in some models, suggesting that firms with concentrated owners are less prone to encounter agency problems and, thus, are less likely to invest abroad. Log of sales is positive and significant: larger firms are more likely to invest abroad because they are more likely to possess the resources to support foreign expansion. Firm age is negative and significant, indicating that older firms are subject to greater inertia and less likely to undertake strategic changes (Freeman, Carroll, and Hannan, 1983). Return on assets is positive and significant in some models: better-performing firms are more likely to invest abroad. Prior international experience is positive and significant in efficiency-seeking and natural resource-seeking foreign direct investment, showing that prior international experience encourages firms to conduct these two types of foreign direct investment. Host country locational advantage is positive and significant in most models, indicating that host country locational advantage is indeed an important driver for different types of foreign direct investment. Finally, geographic distance is negative and significant only in efficiency-seeking foreign direct investment. In other types of foreign direct investment, geographic distance is insignificant or even positive and significant, meaning that multinationals do overcome physical distance and its associated costs such as transportation costs in market-seeking, strategic asset-seeking, and natural resource-seeking foreign direct investment.

Robustness checks

Because it is possible that a multinational enters a foreign country in a year for multiple motivations, we
Table 5. Rare-event logit regressions of distance dimensions on different types of foreign direct investment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td>Market-seeking FDI (H1)</td>
<td>Efficiency-seeking FDI (H2)</td>
<td>Strategic asset-seeking FDI (H3)</td>
<td>Natural resource-seeking FDI (H4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural distance</td>
<td>−0.65*** (0.19)</td>
<td>−1.23 (3.40)</td>
<td>−0.12 (0.39)</td>
<td>−0.04 (0.18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic distance</td>
<td>−0.26* (0.15)</td>
<td>−0.12 (0.19)</td>
<td>−0.08 (1.29)</td>
<td>−0.05 (0.33)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demographic distance</td>
<td>−0.41** (0.15)</td>
<td>−0.09 (8.13)</td>
<td>−0.07 (0.08)</td>
<td>−0.04 (0.03)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political distance</td>
<td>−0.07 (0.27)</td>
<td>−0.05*** (0.00)</td>
<td>−0.09* (0.04)</td>
<td>−0.18*** (0.03)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political hazard</td>
<td>0.22 (0.18)</td>
<td>−0.07*** (0.00)</td>
<td>−0.04*** (0.01)</td>
<td>−0.04 (0.03)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative distance</td>
<td>−0.23 (0.16)</td>
<td>−0.44*** (0.08)</td>
<td>−0.26* (0.12)</td>
<td>−0.74 (0.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product diversification</td>
<td>−0.30* (0.17)</td>
<td>−0.29* (2.58)</td>
<td>−0.19 (2.59)</td>
<td>−0.56* (2.64)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>−0.02 (0.01)</td>
<td>−0.03 (0.03)</td>
<td>−0.01 (0.03)</td>
<td>−0.01 (0.02)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log of sales</td>
<td>1.30*** (0.24)</td>
<td>1.33*** (0.59)</td>
<td>0.63 (0.60)</td>
<td>0.78*** (0.21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>−0.28*** (0.07)</td>
<td>−0.28*** (0.12)</td>
<td>−0.06 (0.12)</td>
<td>−0.29* (0.13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on assets</td>
<td>4.04 (3.37)</td>
<td>3.67 (3.64)</td>
<td>4.02 (3.30)</td>
<td>5.60* (3.33)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic distance</td>
<td>0.21* (0.10)</td>
<td>0.13 (0.11)</td>
<td>−0.60 (0.81)</td>
<td>−0.82*** (0.09)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior international experience</td>
<td>−0.08 (0.07)</td>
<td>−0.09 (0.07)</td>
<td>0.18*** (0.03)</td>
<td>−0.04 (0.25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locational advantage</td>
<td>0.10** (0.03)</td>
<td>0.11* (0.03)</td>
<td>0.07* (0.02)</td>
<td>0.15*** (0.25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>−34.87*** (7.86)</td>
<td>−34.43*** (8.15)</td>
<td>5.15 (5.07)</td>
<td>8.59*** (0.12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry and year dummies</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>136,513</td>
<td>136,513</td>
<td>136,513</td>
<td>136,513</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log pseudo-likelihood</td>
<td>−325.89</td>
<td>−305.09</td>
<td>−27.99</td>
<td>−20.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo r-square</td>
<td>0.31</td>
<td>0.35</td>
<td>0.20</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Robust standard errors are in parentheses. FDI, foreign direct investment. 
+ p < 0.1 * p < 0.05 ** p < 0.01 *** p < 0.001 (two-tailed tests).
checked for the robustness of our results by simultaneously estimating the four models of market-seeking, efficiency-seeking, strategic asset-seeking and natural resource-seeking FDI using seemingly unrelated regression model. Stata does not support seemingly unrelated regression for rare-event logit models. Therefore, we used a logit model instead. The results are summarized in Table 6. The results are largely consistent with those in Table 5. Every distance dimension that was significant in Table 6 remained negative and significant in Table 6.

**DISCUSSION AND CONCLUSION**

In this study, we adopted the OLI paradigm and categorized the LoF into three different types: O-specific, L-specific, and I-specific LoF. We linked the three different types of LoF (as measured by different dimensions of cross-national distance) when they operate abroad for different reasons. The empirical test on a sample of Chinese firms

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**Table 6. Robustness checks**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variables</td>
<td>Market-seeking FDI</td>
<td>Efficiency-seeking FDI</td>
<td>Strategic asset-seeking FDI</td>
<td>Natural resource-seeking FDI</td>
</tr>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural distance</td>
<td>−0.68***</td>
<td>−0.50</td>
<td>−0.59</td>
<td>−0.19</td>
</tr>
<tr>
<td>(0.19)</td>
<td>(0.87)</td>
<td>(0.40)</td>
<td>(0.36)</td>
<td></td>
</tr>
<tr>
<td>Economic distance</td>
<td>−0.27*</td>
<td>−0.10</td>
<td>−0.02</td>
<td>−0.09</td>
</tr>
<tr>
<td>(0.15)</td>
<td>(0.18)</td>
<td>(1.28)</td>
<td>(1.41)</td>
<td></td>
</tr>
<tr>
<td>Demographic distance</td>
<td>−0.43**</td>
<td>−0.54</td>
<td>−0.86</td>
<td>0.09</td>
</tr>
<tr>
<td>(0.15)</td>
<td>(2.52)</td>
<td>(0.83)</td>
<td>(0.21)</td>
<td></td>
</tr>
<tr>
<td>Political distance</td>
<td>−0.10</td>
<td>−0.15***</td>
<td>−0.07*</td>
<td>−0.12***</td>
</tr>
<tr>
<td>(0.27)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td>Political hazard</td>
<td>−0.26</td>
<td>−0.05***</td>
<td>−0.02*</td>
<td>−0.11</td>
</tr>
<tr>
<td>(0.18)</td>
<td>(0.09)</td>
<td>(0.20)</td>
<td>(0.19)</td>
<td></td>
</tr>
<tr>
<td>Administrative distance</td>
<td>−0.24</td>
<td>−0.43***</td>
<td>−0.48***</td>
<td>−0.56</td>
</tr>
<tr>
<td>(0.16)</td>
<td>(0.09)</td>
<td>(0.20)</td>
<td>(0.78)</td>
<td></td>
</tr>
<tr>
<td>Product diversification</td>
<td>−0.22</td>
<td>−0.19</td>
<td>−0.39</td>
<td>−1.67***</td>
</tr>
<tr>
<td>(0.17)</td>
<td>(0.26)</td>
<td>(0.28)</td>
<td>(0.18)</td>
<td></td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>−0.02</td>
<td>−0.04</td>
<td>−0.01</td>
<td>−0.11***</td>
</tr>
<tr>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.02)</td>
<td></td>
</tr>
<tr>
<td>Log of sales</td>
<td>1.37***</td>
<td>0.68</td>
<td>0.95***</td>
<td>0.75***</td>
</tr>
<tr>
<td>(0.24)</td>
<td>(0.60)</td>
<td>(0.22)</td>
<td>(0.15)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>−0.28***</td>
<td>−0.10</td>
<td>−0.41***</td>
<td>0.02</td>
</tr>
<tr>
<td>(0.08)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.10)</td>
<td></td>
</tr>
<tr>
<td>Return on assets</td>
<td>−1.02</td>
<td>5.60*</td>
<td>4.10***</td>
<td>5.67***</td>
</tr>
<tr>
<td>(1.31)</td>
<td>(3.33)</td>
<td>(1.26)</td>
<td>(0.57)</td>
<td></td>
</tr>
<tr>
<td>Locational advantage</td>
<td>0.10</td>
<td>0.11***</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>(0.07)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td>Geographic distance</td>
<td>0.14</td>
<td>−0.08***</td>
<td>−0.09</td>
<td>−1.56***</td>
</tr>
<tr>
<td>(0.11)</td>
<td>(0.00)</td>
<td>(0.08)</td>
<td>(0.39)</td>
<td></td>
</tr>
<tr>
<td>Prior international experience</td>
<td>−0.10</td>
<td>−0.15</td>
<td>−0.32</td>
<td>0.30***</td>
</tr>
<tr>
<td>(0.08)</td>
<td>(0.17)</td>
<td>(0.32)</td>
<td>(0.06)</td>
<td></td>
</tr>
<tr>
<td>Industry and year dummies</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Constant</td>
<td>−35.52***</td>
<td>−264.36***</td>
<td>−45.17***</td>
<td>−11.43***</td>
</tr>
<tr>
<td>(8.15)</td>
<td>(20.45)</td>
<td>(7.74)</td>
<td>(3.15)</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>136,513</td>
<td>136,513</td>
<td>136,513</td>
<td>136,513</td>
</tr>
</tbody>
</table>

Robust standard errors are in parentheses.

* $p < 0.1$  ** $p < 0.05$  *** $p < 0.01$  **** $p < 0.001$ (two-tailed tests).
supported our hypotheses. Our analyses have both theoretical and practical implications.

Theoretically, we contribute to the literature on the LoF by identifying and measuring different types of the LoF. Although scholars have tried to categorize different types of the LoF, we advance our understanding of the LoF in three ways. First, we adopted the OLI paradigm as the theoretical foundation of our categorization. Unlike other studies that lack a comprehensive framework to support their categorization, we adopted the OLI paradigm—one of the most comprehensive and well-accepted theories to explain FDI—as the theoretical foundation for our categorization. By adopting the OLI paradigm, we also categorize the LoF by its impact and not by its source, as most other studies did. Second, we highlighted the role of firm heterogeneity in assessing the impact of the LoF. We showed that firms face different types of the LoF according to different motivations for engaging in foreign direct investment. Our study is one of the first to examine how the various types of the LoF influence foreign entry decisions when multinationals invest abroad for different motivations. Third, we also empirically measure different types of the LoF by different dimensions of cross-national distance. Previous attempts to categorize the LoF are largely theoretical. Our study advances our understanding of the LoF by empirically measuring and testing different types of the LoF.

Our study also contributes to the literature on distance by linking distance to the LoF. Although prior studies have recognized the multidimensional nature of cross-national distance, they have not linked it with the concept of the LoF. By creating such a linkage, we advance our understanding of the impact of distance on foreign entry decision. Moreover, the context of this study is firms from emerging markets, while the majority of existing studies on distance focus on firms from developed countries. Thus, this study adds new insights to distance research by exploring new contexts.

The findings of this article provide insights into the recent debate on whether the world is flat (Friedman, 2005), spiky (Florida, 2005), or semi-globalized (Ghemawat, 2003). While proponents of the view that the world is flat believed that the advance in technology has made the world borderless, believers in the view that the world is spiky or semiglobalized observe that there are still substantial globalization barriers. Our findings support the latter view by showing that the world is still spiky and that different dimensions of cross-national distance still play significant roles in deterring foreign entries, although the impact of geographic distance itself becomes negligible.

Finally, the findings regarding the role of prior foreign experience on foreign direct investment speak to the validity of staged theories of internationalization (Johanson and Vahlne, 1977, 1990). Although prior experience helps overcome the LoF in efficiency-seeking and natural resource-seeking foreign direct investment, its impact is limited in the other types of foreign direct investment.

Our findings also have practical implications. MNE managers need to carefully assess the extent to which their own firms are affected by each type of the LoF. It is imperative not to simply emulate other firms going abroad. By the same token, policymakers focused on attracting foreign direct investment to the host country would need to carefully analyze what to emphasize as a magnet for foreign multinationals. Our analysis suggests that they need to adopt policies that reduce different types of the LoF for each type of foreign direct investment.

This research suffers from several limitations. First, the sample is from only one home country. Therefore, one should be cautious in generalizing the implications of our findings to firms from other countries without examining the peculiar characteristics of China. Future research could analyze multiple home countries to test the external validity of the results reported in this article. A related point is that, when examining multiple host and home countries, scholars need to recognize the asymmetric nature of cross-national distance, which we did not address in this article because we have only one home country. Third, we focused on only three types of the LoF. It is possible that there are other types of the LoF that hinder foreign investments. Finally, we did not consider the effects of prior international experience based on prior investments within specific types, which would enable testing if prior experience in efficiency-seeking foreign direct investment, for instance, is relevant for market-seeking or strategic asset-seeking FDI. These limitations offer additional avenues for future research within the systematic framework of analysis proposed in this article.

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